

ABSTRACT OF THE DISCLOSURE

A point-to-point, wireless, millimeter wave communications links equipped with tracking antennas to maintain pencil beam contact between the links. In a preferred embodiment the communication links operate within the 92 to 95 GHz portion of the millimeter spectrum and provides data transmission rates in excess of 155 Mbps. A first transceiver transmits at a first bandwidth and receives at a second bandwidth both within the above spectral range. A second transceiver transmits at the second bandwidth and receives at the first bandwidth. The transceivers are equipped with antennas providing beam divergence small enough to ensure efficient spatial and directional partitioning of the data channels so that an almost unlimited number of transceivers will be able to simultaneously use the same spectrum. In a preferred embodiment the first and second spectral ranges are 92.3-93.2 GHz and 94.1-95.0 GHz and the half power beam width is about 0.36 degrees or less.